Pluralsight’s guided learning begins with adaptive skill assessments that enable us to meet you where you are and get you quickly up to speed on the technology skills critical to your success.

Pluralsight Iris—our assessment algorithm and recommendation engine—powers the tools available to you within Pluralsight, like Skill IQ and Role IQ. The IQ stands for Iris Quotient—it’s the rating that quantifies proficiency and allows us to instantly curate skill-building paths tailored to unique needs.

**How Iris works**

Iris was developed with the understanding that when you can measure skills and roles, you can develop them. Existing ways of measuring skills, however, are largely broken. The time and effort exhausted by traditional tests lead to test-taker fatigue, and—particularly in the realm of technology—questions become quickly out of date because of the rapid pace of innovation.

To solve for problems that traditional assessments pose, Iris combines modern testing theories based on more than 50 years of research with machine learning to create a statistical model for skill levels. To stay relevant, Iris adapts and collects data about what people are learning and which technologies are trending.

---

**Adaptive assessments work by leveraging Item Response Theory (IRT).**

IRT focuses on the difficulty of each individual item, rather than the overall assessment. As users answer questions, the adaptive assessment infers their likely skill level with increasing probability based on the difficulty of each question answered. It becomes unnecessary, then, to serve up all assessment items, enabling short-form assessments to replace traditional long-form tests.
Pluralsight’s proprietary algorithms also solve for the problem of experts determining the difficulty of individual questions. With Iris, assessments start in a validation mode. Here, users complete a subset of questions, but are not given a score upon completion of their assessment. Instead, Iris is making several determinations about each item, including two key measurements:

1. Relative difficulty level. This helps the engine rank each item, and during subsequent deliveries these difficulty rankings help determine which items are offered.

2. Quality. Some items may not correlate well with the overall item pool, like those that many people get wrong even though they do well overall. Low quality items are automatically removed from the pool.

Gaining these insights in validation mode ensures that accurate, adaptive assessments are brought into production more quickly and accurately than allowed for by traditional methods. Adaptive assessments also make it possible for new items to be added to the pool and for difficulties to be changed as the market changes.

**Iris and accuracy**

Pluralsight’s advanced adaptive scoring technique utilizes information-maximization to perform highly accurate skill measurements with a minimum number of user interactions. During a Pluralsight adaptive skill assessment, Iris maintains both a ranking for the learner and a ratings deviation (rd) which measures the engine’s confidence in its ranking. The engine’s confidence level increases as questions are answered, and the assessment is ended/ranking finalized when the confidence level reaches a particular threshold. Typically around 20 questions are needed to reach a statistically meaningful confidence level.

By stopping when a user reaches a particular rd, the assessment can give consistent results in less time.

This chart is a correlation plot for one of Pluralsight’s adaptive skill assessments. The vertical axis shows learner scores after reaching an rd of 80. The horizontal axis represents the same learner performance after a non-adaptive, long-form version of the same assessment, expressed as a percentage of items correct.

In this case, there is a Pearson correlation of 0.77 between the two scores (1.0 is perfect correlation). Across a larger selection of adaptive assessments, correlations run as high as 0.80.
Skill IQ is an adaptive assessment that measures proficiency in a technology skill as compared to your peers in about 10 minutes and just 20 questions. Questions are added regularly from the largest network of expert practitioners so that Iris stays relevant.

Because Skill IQ has the adaptive technology of Iris behind it, each question served is based on how the previous one is answered; there’s no fixed length or static topic coverage, but rather a highly personalized, dynamic experience. Adaptive assessments work to zero in on skill level, which actually makes testing fun because the test taker is challenged without becoming frustrated or bored.

Skill IQ allows users to more quickly get back to what’s important—learning what’s need to skill up. On top of assigning a quantified rating between 0 and 300 by benchmarking skill level compared to others, getting a Skill IQ prompts Iris to identify where the learner should begin to focus.

### At a glance

**ASSESSMENT DETAILS**

**Python: Expert**

- **Expert** 201-300
- **Proficient** 101-200
- **Novice** 0-100

Skill IQ is a continuous score from 0 to 300, based on your percentile compared to others. Your skill rating is broken into three levels:

- **Novice**: 1st-20th percentile
- **Proficient**: 21st-80th percentile
- **Expert**: 81st and higher percentile

All IQ scores also include a date of verification.
Where Skill IQ measures individual skills in a given technology, Role IQ combines select skills into a role. Role IQ offers a clear path for individual growth and gives leaders visibility into talent within their organizations. Our author network, industry leaders and partners continue to develop these roles and the essential skills associated with them. Technology leaders can also tailor roles to their organization’s unique needs.

**GETTING YOUR ROLE IQ**

When you select the Role IQ you’re interested in, you’ll see all skill assessments related to it. Completing them generates your Role IQ. If you’ve already received a Skill IQ related to your Role IQ, it will be shown as complete. Remember, during each skill assessment Iris is characterizing questions based on how many people will get them right or wrong (Item Response Theory) and approximating the likelihood of an outcome given that something else has occurred (Bayes’ Theorem) in order to drill down quickly to an authentic rating.

For Role IQ, Iris uses skill data to model the thresholds of proficiency required for each skill in a given role. These thresholds are then used in a predictive machine learning model to assign one of three levels to learners. As your Role IQ level and benchmarks related to each skill appear, so will learning recommendations based on your gaps in knowledge.

**Using Pluralsight IQ**

Skill IQs and Role IQs are objective data points that can be used to inform decisions around team members and career paths. When you see your Pluralsight IQ, you’re seeing third-party verification of your skills. And you can share that with the world. Leaders who see a Pluralsight IQ on a LinkedIn profile can trust that the person has done more than just complete a course; they’ll know their exact proficiency.